



## Department of Energy

### Ohio Field Office Fernald Area Office

P. O. Box 538705  
Cincinnati, Ohio 45253-8705  
(513) 648-3155



4141

FEB 22 2002

Mr. James A. Saric, Remedial Project Manager  
United States Environmental Protection Agency  
Region V-SRF-5J  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

DOE-0336-02

Mr. Tom Schneider, Project Manager  
Ohio Environmental Protection Agency  
401 East 5<sup>th</sup> Street  
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

#### **REQUEST FOR CONCURRENCE OF ADDITIONAL CERTIFICATION SAMPLING FOR AREA 9, PHASE I**

This letter is to inform you that after the initial round of sampling and analyses, additional certification samples are required to be taken in Area 9, Phase I (A9PI) and request your approval for Variance/Field Change Notice (V/FCN) 21120-PSP-0003-10 to the original Project Specific Plan (PSP) for A9PI Certification Sampling.

The Sitewide Excavation Plan (SEP) with its associated addendum provides direction as to the statistical analyses that must be performed on the data gathered during certification. Following this direction, a test was performed on each Certification Unit (CU) for each analyte. From this calculation, five CUs were determined to need additional samples for radium-226 and one CU was determined to need additional samples for arsenic. Likewise, following the guidance from the SEP addendum related to subsurface background confirmation, one CU was found to be potentially impacted thus requiring certification at depth.

In addition, aroclor-1260 was originally analyzed by the Contract Laboratory Protocol (CLP) OLM04.2 method, which has a Contract Required Detection Limit (CRDL) of 40 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ). At the time of the submittal of the A9PI Certification PSP, the CLP method was the only method that could support an Analytical Support Level (ASL) D data package as required by the SEP for certification activities. All results obtained using this method were reported as "non-detected" with a Minimum Detection Level (MDL) of approximately 40  $\mu\text{g}/\text{kg}$ . This detection limit does not meet the

FEB-22-2002

Mr. James A. Saric  
Mr. Tom Schneider

-2-

DOE-0336-02

414

commitment of 1/10 Final Remediation Level (FRL). Since the approval of the A9PI Certification PSP, the SW-846 method for the determination of aroclor-1260 was approved for ASL D data packages. This method offers a MDL of at least 4 µg/kg, which does meet the commitment of 1/10 FRL. As a result, one additional sample will be collected from the center point of each CU and analyzed for aroclor-1260 by the SW-846 method.

V/FCN 21120-PSP-0003-10 to the A9PI Certification PSP is enclosed for your approval, which documents the justification and approach for the collection of these samples.

If you have any questions or need further information, please contact Robert Janke at (513) 648-3124.

Sincerely,



Johnny W. Reising  
Fernald Remedial Action  
Project Manager

FEMP:R.J. Janke

Enclosures: As Stated

FEB 22 2002

Mr. James A. Saric  
Mr. Tom Schneider

-3-

DOE-0336-02

**4141**

cc w/enclosure:

C. Summe, Resident  
R. J. Janke, OH/FEMP  
J. Reising, OH/FEMP  
T. Schneider, OEPA-Dayton (three copies of enclosure)  
G. Jablonowski, USEPA-V, SRF-5J  
F. Bell, ATSDR  
F. Hodge, Tetra Tech  
M. Schupe, HSI GeoTrans  
R. Vandegrift, ODH  
AR Coordinator, Fluor Fernald, Inc./MS78

cc w/o enclosure:

R. Greenberg, EM-31/CLOV  
N. Hallein, EM-31/CLOV  
A. Tanner, OH/FEMP  
K. Blades, Fluor Fernald, Inc./MS64  
D. Carr, Fluor Fernald, Inc./MS2  
J. D. Chiou, Fluor Fernald, Inc./MS52-0  
T. Hagen, Fluor Fernald, Inc./MS65-2  
S. Hinnefeld, Fluor Fernald, Inc./MS52-2  
M. Jewett, Fluor Fernald, Inc./MS52-2  
A. Madani, Fluor Fernald, Inc./MS65  
F. Miller, Fluor Fernald, Inc./MS64  
T. Walsh, Fluor Fernald, Inc./MS46  
E. Woods, Fluor Fernald, Inc./MS65-2  
ECDC, Fluor Fernald, Inc./MS52-7

**VARIANCE / FIELD CHANGE NOTICE**

V/F 21120-PSP-0003-09

16 FEB

WBS NO.: PROJECT/DOCUMENT/ECDC 21120-PSP-0003, REV 0

Page 1 of 6

PROJECT TITLE: PSP for Area 9, Phase I Certification Sampling

Date 02/20/02

4141

**VARIANCE / FIELD CHANGE NOTICE (Include justification):**

This Variance/Field Change Notice (V/FCN) documents additional surface sampling to be conducted in Area 9 Phase I. The sample IDs and coordinates are shown on Table 1 and the sample locations are shown on Figure 1.

- (1) Surface samples from an additional 16 randomly selected locations in CU A9P1-C-12 will be collected, analyzed, and validated for arsenic in accordance with requirements specified in the PSP.

Surface samples from an additional 16 randomly selected locations in each of the following CUs: A9P1-C-6, A9P1-C-8, A9P1-C-10, A9P1-C-11, and A9P1-C-14 will be collected, analyzed, and validated for Radium-226 in accordance with requirements specified in the PSP for Radium-226.

- (2) Surface samples from the center point of all 20 CUs will be collected in accordance with the PSP and analyzed for Aroclor-1260. The method of analysis will be switched from CLP to SW846 with an MDC of 0.004 mg/kg, which is 1/10<sup>th</sup> of the FRL. These samples will be analyzed at ASL D and validated in accordance with the PSP.

- (3) Subsurface samples from CU A9P1-C-14 will be collected at intervals 12"-36" and 36"-48" at the exact locations as the surface samples for CU-14 in (1). The samples at the 12"-36" interval will be collected, analyzed, and validated for Radium-226 in accordance with requirements specified in the PSP. (i.e. composited and homogenized) The samples at the 36"-48" interval will be archived.

For surface sampling, consistent with the PSP, any sample location that falls within the plowed zone (CUs 5-20) the entire 12" core will be homogenized. Any sample that falls in the non-plowed zone (CUs 1-4), will be taken from the 0"-6" interval.

Note: The numbering scheme for these samples follows the format set up in the PSP. Beginning with the next consecutive number for each CU from Appendix B in the PSP, item (1) sample numbers were generated first, then (2) and finally (3).

4

## VARIANCE / FIELD CHANGE NOTICE

V/F 21120-PSP-0003-02

10 FEB

WBS NO.: PROJECT/DOCUMENT/ECDC 21120-PSP-0003, REV 0

Page 2 of 6

2141

PROJECT TITLE: PSP for Area 9, Phase I Certification Sampling

Date 02/20/02

Justification

- (1) Statistical analysis (a posteriori test) of results obtained for the planned samples indicated that additional samples are needed for these CUs.
- (2) Aroclor-1260 analysis was requested by CLP, which has a CRDL greater than the offsite FRL. All results came back as non-detected. The re-samples will request Aroclor-1260 analysis by SW846, which can provide a much lower detection limit.
- (3) Following the guidelines of the SEP Addendum, page ADD-2, CU-14 subsurface is considered impacted, thus requiring certification. The 12"-36" interval will be considered to be an additional unique CU and will be named A9P1-C-14A. The archives will be collected at this time due to limited access agreements. The archives will be utilized for bounding if the subsurface CU fails certification.

REQUESTED BY: Ana Madani

Date: 02/20/02

X IF REQD	VARIANCE/FCN APPROVAL	DATE	X IF REQD	VARIANCE/FCN APPROVAL	DATE
X	QUALITY ASSURANCE: R. Friate <i>R. Friate</i>	2/20/02	X	PROJECT MANAGER J.D. Chlou <i>J.D. Chlou</i>	2/20/02
	LABORATORY MANAGER		X	Characterization Manager: F. Miller <i>Frank Miller</i>	2/20/02
X	ANALYTICAL CUSTOMER SUPPORT: D. Arico <i>Brenda Collier for D. Arico</i>	2/20/02		RTIMP Manager	
	WAO: L. Barlow		X	Sampling Manager: T. Buhrfage <i>T. Buhrfage</i>	2/20/02

VARIANCE/FCN APPROVED [X] YES [ ] NO

REVISION REQUIRED: [ ] YES [x] NO

## DISTRIBUTION

PROJECT MANAGER:	DOCUMENT CONTROL: Jeannie Rosser	OTHER:
QUALITY ASSURANCE:	CHARACTERIZATION MANAGER: Frank Miller	OTHER:
FIELD MANAGER:	OTHER:	OTHER:

TABLE 1  
SAMPLE LOCATIONS AND IDENTIFIERS

V/F 21120-PSP-0003-10  
Page 3 of 6  
Date 2/20/02

4141

LOCATION ID	DEPTH	SAMPLE ID	ANALYSIS	EAST-83	NORTH-83
1	0'-6"	A9P1-C-1-17-1-P	Aroclor-1260	483449.03	1352151.85
2	0'-6"	A9P1-C-2-17-1-P	Aroclor-1260	483822.40	1352545.36
3	0'-6"	A9P1-C-3-17-1-P	Aroclor-1260	483347.58	1352538.48
4	0'-6"	A9P1-C-4-17-1-P	Aroclor-1260	482924.79	1352749.60
5	0'-12"	A9P1-C-5-17-2-P	Aroclor-1260	482930.59	1352495.95
6	0'-12"	A9P1-C-6-17-2-R	Radium-226	482567.06	1352128.61
	0'-12"	A9P1-C-6-18-2-R	Radium-226	482522.88	1352278.27
	0'-12"	A9P1-C-6-19-2-R	Radium-226	482609.03	1352400.88
	0'-12"	A9P1-C-6-20-2-R	Radium-226	482537.06	1352525.29
	0'-12"	A9P1-C-6-21-2-R	Radium-226	482490.23	1352154.57
	0'-12"	A9P1-C-6-21-2-R.D	Radium-227	482490.23	1352154.57
	0'-12"	A9P1-C-6-22-2-R	Radium-226	482483.00	1352304.80
	0'-12"	A9P1-C-6-23-2-R	Radium-226	482442.94	1352426.01
	0'-12"	A9P1-C-6-24-2-R	Radium-226	482437.79	1352551.09
	0'-12"	A9P1-C-6-25-2-R	Radium-226	482352.68	1352149.89
	0'-12"	A9P1-C-6-26-2-R	Radium-226	482366.34	1352321.71
	0'-12"	A9P1-C-6-27-2-R	Radium-226	482273.27	1352447.57
	0'-12"	A9P1-C-6-28-2-R	Radium-226	482340.14	1352545.09
	0'-12"	A9P1-C-6-29-2-R	Radium-226	482186.27	1352161.69
	0'-12"	A9P1-C-6-30-2-R	Radium-226	482231.34	1352263.92
	0'-12"	A9P1-C-6-31-2-R	Radium-226	482173.50	1352391.32
	0'-12"	A9P1-C-6-32-2-R	Radium-226	482231.94	1352529.18
	0'-12"	A9P1-C-6-33-2-P	Aroclor-1260	482387.11	1352359.54
7	0'-12"	A9P1-C-7-17-2-P	Aroclor-1260	481921.05	1352353.60
8	0'-12"	A9P1-C-8-17-2-R	Radium-226	481615.53	1352180.26
	0'-12"	A9P1-C-8-18-2-R	Radium-226	481581.83	1352322.60
	0'-12"	A9P1-C-8-19-2-R	Radium-226	481658.18	1352429.39
	0'-12"	A9P1-C-8-20-2-R	Radium-226	481617.55	1352585.04
	0'-12"	A9P1-C-8-20-2-R.D	Radium-227	481617.55	1352585.04
	0'-12"	A9P1-C-8-21-2-R	Radium-226	481550.77	1352127.62
	0'-12"	A9P1-C-8-22-2-R	Radium-226	481512.05	1352306.94
	0'-12"	A9P1-C-8-23-2-R	Radium-226	481486.39	1352422.70
	0'-12"	A9P1-C-8-24-2-R	Radium-226	481539.47	1352553.71
	0'-12"	A9P1-C-8-25-2-R	Radium-226	481339.42	1352189.62
	0'-12"	A9P1-C-8-26-2-R	Radium-226	481442.99	1352252.53
	0'-12"	A9P1-C-8-27-2-R	Radium-226	481419.64	1352407.02
	0'-12"	A9P1-C-8-28-2-R	Radium-226	481432.36	1352552.08
	0'-12"	A9P1-C-8-29-2-R	Radium-226	481224.49	1352195.92
	0'-12"	A9P1-C-8-30-2-R	Radium-226	481288.22	1352288.61
	0'-12"	A9P1-C-8-31-2-R	Radium-226	481282.12	1352403.36
	0'-12"	A9P1-C-8-32-2-R	Radium-226	481296.09	1352566.56
	0'-12"	A9P1-C-8-33-2-P	Aroclor-1260	481449.95	1352348.73
9	0'-12"	A9P1-C-9-17-2-P	Aroclor-1260	480961.81	1352345.53

TABLE 1  
SAMPLE LOCATIONS AND IDENTIFIERS

V/F 21120-PSP-0003-10  
Page 4 of 6  
Date 2/20/02

4141

LOCATION ID	DEPTH	SAMPLE ID	ANALYSIS	EAST-83	NORTH-83
10	0'-12"	A9P1-C-10-17-2-R	Radium-226	480993.25	1351850.66
	0'-12"	A9P1-C-10-18-2-R	Radium-226	480989.30	1351893.42
	0'-12"	A9P1-C-10-18-2-R-D	Radium-227	480989.30	1351893.42
	0'-12"	A9P1-C-10-19-2-R	Radium-226	480965.77	1351976.56
	0'-12"	A9P1-C-10-20-2-R	Radium-226	480981.53	1352027.25
	0'-12"	A9P1-C-10-21-2-R	Radium-226	480910.58	1351884.02
	0'-12"	A9P1-C-10-22-2-R	Radium-226	480939.04	1351932.54
	0'-12"	A9P1-C-10-23-2-R	Radium-226	480910.16	1352001.04
	0'-12"	A9P1-C-10-24-2-R	Radium-226	480963.71	1352084.98
	0'-12"	A9P1-C-10-25-2-R	Radium-226	480924.80	1352052.50
	0'-12"	A9P1-C-10-26-2-R	Radium-226	480870.03	1351897.96
	0'-12"	A9P1-C-10-27-2-R	Radium-226	480897.25	1351938.34
	0'-12"	A9P1-C-10-28-2-R	Radium-226	480885.55	1351986.43
	0'-12"	A9P1-C-10-29-2-R	Radium-226	480867.25	1352042.51
	0'-12"	A9P1-C-10-30-2-R	Radium-226	480848.60	1351960.11
	0'-12"	A9P1-C-10-31-2-R	Radium-226	480832.96	1351995.68
	0'-12"	A9P1-C-10-32-2-R	Radium-226	480802.47	1352077.63
	0'-12"	A9P1-C-10-33-2-P	Aroclor-1260	480915.88	1351969.75
11	0'-12"	A9P1-C-11-17-2-R	Radium-226	481171.00	1351856.45
	0'-12"	A9P1-C-11-18-2-R	Radium-226	481164.23	1351955.67
	0'-12"	A9P1-C-11-19-2-R	Radium-226	481158.48	1352017.59
	0'-12"	A9P1-C-11-20-2-R	Radium-226	481173.69	1352083.21
	0'-12"	A9P1-C-11-21-2-R	Radium-226	481119.57	1351856.02
	0'-12"	A9P1-C-11-22-2-R	Radium-226	481108.54	1351940.95
	0'-12"	A9P1-C-11-23-2-R	Radium-226	481140.07	1351996.62
	0'-12"	A9P1-C-11-24-2-R	Radium-226	481107.37	1352060.69
	0'-12"	A9P1-C-11-25-2-R	Radium-226	481083.91	1351880.30
	0'-12"	A9P1-C-11-26-2-R	Radium-226	481066.40	1351933.64
	0'-12"	A9P1-C-11-26-2-R-D	Radium-226	481066.40	1351933.64
	0'-12"	A9P1-C-11-27-2-R	Radium-226	481088.04	1352000.35
	0'-12"	A9P1-C-11-28-2-R	Radium-226	481066.53	1352051.98
	0'-12"	A9P1-C-11-29-2-R	Radium-226	481039.02	1351867.63
	0'-12"	A9P1-C-11-30-2-R	Radium-226	481010.29	1351919.52
	0'-12"	A9P1-C-11-31-2-R	Radium-226	481011.53	1352012.47
	0'-12"	A9P1-C-11-32-2-R	Radium-226	481031.35	1352044.09
	0'-12"	A9P1-C-11-33-2-P	Aroclor-1260	481104.32	1351971.03
12	0'-12"	A9P1-C-12-17-2-M	Arsenic	481429.85	1351897.01
	0'-12"	A9P1-C-12-18-2-M	Arsenic	481440.56	1351941.07
	0'-12"	A9P1-C-12-19-2-M	Arsenic	481443.01	1352001.26
	0'-12"	A9P1-C-12-20-2-M	Arsenic	481430.31	1352071.20
	0'-12"	A9P1-C-12-21-2-M	Arsenic	481354.26	1351895.91
	0'-12"	A9P1-C-12-22-2-M	Arsenic	481378.09	1351944.40
	0'-12"	A9P1-C-12-23-2-M	Arsenic	481342.34	1351983.37
	0'-12"	A9P1-C-12-24-2-M	Arsenic	481355.72	1352039.43
	0'-12"	A9P1-C-12-25-2-M	Arsenic	481279.17	1351889.27
	0'-12"	A9P1-C-12-26-2-M	Arsenic	481299.48	1351955.70
	0'-12"	A9P1-C-12-27-2-M	Arsenic	481305.30	1352019.46
	0'-12"	A9P1-C-12-28-2-M	Arsenic	481284.62	1352072.09
	0'-12"	A9P1-C-12-29-2-M	Arsenic	481232.99	1351872.24
	0'-12"	A9P1-C-12-30-2-M	Arsenic	481227.13	1351946.49
	0'-12"	A9P1-C-12-30-2-M-D	Arsenic	481227.13	1351946.49
	0'-12"	A9P1-C-12-31-2-M	Arsenic	481241.05	1352005.59
	0'-12"	A9P1-C-12-32-2-M	Arsenic	481242.22	1352055.04
	0'-12"	A9P1-C-12-33-2-P	Aroclor-1260	481328.68	1351971.02
13	0'-12"	A9P1-C-13-17-2-P	Aroclor-1260	481573.69	1351972.53

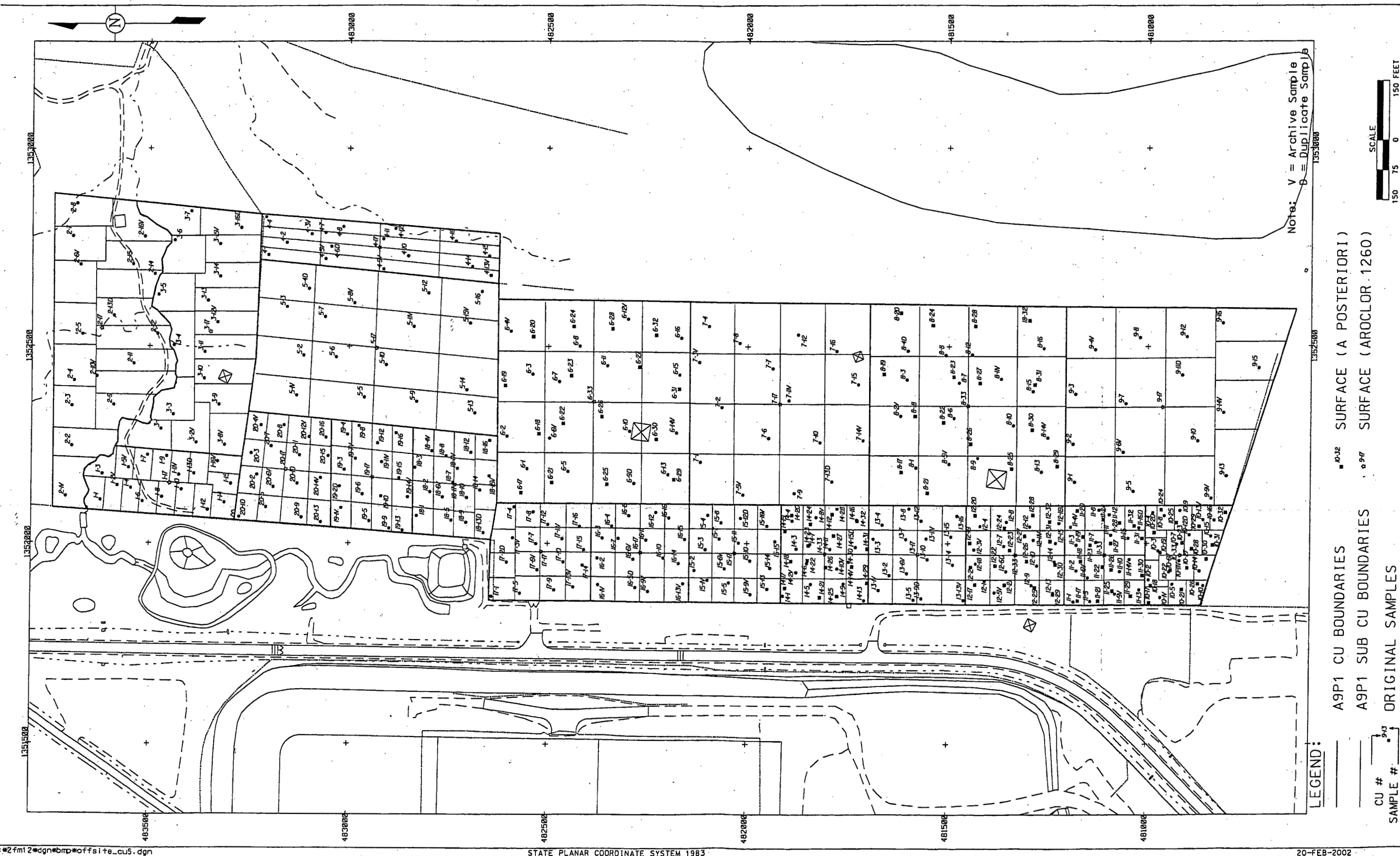
TABLE 1  
SAMPLE LOCATIONS AND IDENTIFIERS

V/F 21120-PSP-0003-10  
Page 5 of 8  
Date 2/20/02

4141

LOCATION ID	DEPTH	SAMPLE ID	ANALYSIS	EAST-83	NORTH-83
14	0'-12"	A9P1-C-14-17-2-R	Radium-226	481904.80	1351888.07
	12'-36"	A9P1-C-14A-17-3-R	Radium-226		
	36'-48"	A9P1-C-14A-17-8-V	Archive		
	0'-12"	A9P1-C-14-18-2-R	Radium-226	481890.31	1351955.47
	12'-36"	A9P1-C-14A-18-3-R	Radium-226		
	36'-48"	A9P1-C-14A-18-8-V	Archive		
	0'-12"	A9P1-C-14-19-2-R	Radium-226	481905.44	1352031.37
	12'-36"	A9P1-C-14A-19-3-R	Radium-226		
	36'-48"	A9P1-C-14A-19-8-V	Archive		
	0'-12"	A9P1-C-14-20-2-R	Radium-226	481888.45	1352071.37
	12'-36"	A9P1-C-14A-20-3-R	Radium-226		
	36'-48"	A9P1-C-14A-20-8-V	Archive		
	0'-12"	A9P1-C-14-21-2-R	Radium-226	481818.10	1351864.77
	12'-36"	A9P1-C-14A-21-3-R	Radium-226		
	36'-48"	A9P1-C-14A-21-8-V	Archive		
	0'-12"	A9P1-C-14-22-2-R	Radium-226	481849.31	1351957.08
	12'-36"	A9P1-C-14A-22-3-R	Radium-226		
	36'-48"	A9P1-C-14A-22-8-V	Archive		
	0'-12"	A9P1-C-14-23-2-R	Radium-226	481847.30	1351994.83
	12'-36"	A9P1-C-14A-23-3-R	Radium-226		
	36'-48"	A9P1-C-14A-23-8-V	Archive		
	0'-12"	A9P1-C-14-24-2-R	Radium-226	481841.82	1352048.53
	12'-36"	A9P1-C-14A-24-3-R	Radium-226		
	36'-48"	A9P1-C-14A-24-8-V	Archive		
	0'-12"	A9P1-C-14-25-2-R	Radium-226	481773.85	1351867.93
	12'-36"	A9P1-C-14A-25-3-R	Radium-226		
	36'-48"	A9P1-C-14A-25-8-V	Archive		
	0'-12"	A9P1-C-14-26-2-R	Radium-226	481802.91	1351939.96
	12'-36"	A9P1-C-14A-26-3-R	Radium-226		
	36'-48"	A9P1-C-14A-26-8-V	Archive		
	0'-12"	A9P1-C-14-27-2-R	Radium-226	481783.00	1352019.43
	12'-36"	A9P1-C-14A-27-3-R	Radium-226		
	36'-48"	A9P1-C-14A-27-8-V	Archive		
	0'-12"	A9P1-C-14-28-2-R	Radium-226	481786.92	1352073.26
	12'-36"	A9P1-C-14A-28-3-R	Radium-226		
	36'-48"	A9P1-C-14A-28-8-V	Archive		
	0'-12"	A9P1-C-14-29-2-R	Radium-226	481698.18	1351900.61
	12'-36"	A9P1-C-14A-29-3-R	Radium-226		
	36'-48"	A9P1-C-14A-29-8-V	Archive		
	0'-12"	A9P1-C-14-30-2-R	Radium-226	481736.69	1351941.14
	12'-36"	A9P1-C-14A-30-3-R	Radium-226		
	36'-48"	A9P1-C-14A-30-8-V	Archive		
	0'-12"	A9P1-C-14-31-2-R	Radium-226	481697.99	1351985.94
	12'-36"	A9P1-C-14A-31-3-R	Radium-226		
	36'-48"	A9P1-C-14A-31-8-V	Archive		
	0'-12"	A9P1-C-14-31-2-R-D	Radium-226	481697.99	1351985.94
	12'-36"	A9P1-C-14A-31-3-R-D	Radium-226		
	36'-48"	A9P1-C-14A-31-8-V-D	Archive		
	0'-12"	A9P1-C-14-32-2-R	Radium-226	481724.16	1352056.64
	12'-36"	A9P1-C-14A-32-3-R	Radium-226		
	36'-48"	A9P1-C-14A-32-8-V	Archive		
	0'-12"	A9P1-C-14-33-2-P	Aroclor-1260	481805.36	1351973.69
15	0'-12"	A9P1-C-15-17-2-P	Aroclor-1260	482031.35	1351975.16
16	0'-12"	A9P1-C-16-17-2-P	Aroclor-1260	482269.16	1351977.26
17	0'-12"	A9P1-C-17-17-2-P	Aroclor-1260	482516.30	1351979.45
18	0'-12"	A9P1-C-18-17-2-P	Aroclor-1260	482732.81	1352148.44
19	0'-12"	A9P1-C-19-17-2-P	Aroclor-1260	482940.41	1352166.92
20	0'-12"	A9P1-C-20-17-2-P	Aroclor-1260	483157.22	1352188.52





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STATE PLANAR COORDINATE SYSTEM 1983

20-FEB-2002

A9P1 CU & SUB CU BOUNDARIES & ADDITIONAL CERTIFICATION  
SAMPLING LOCATIONS (V/F 21120-PSP-0003-10)

LEGEND:

CU #  
SAMPLE #

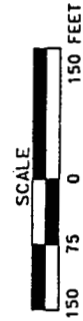
A9P1 CU BOUNDARIES

A9P1 SUB CU BOUNDARIES

ORIGINAL SAMPLES

10-32 SURFACE (A POSTERIORI)

9-97 SURFACE (AROCOR 1260)



Note: V = Archive Sample  
D = Duplicate Sample